In conjunction with our greenhouse studies on testing beans for reaction to P. syringae, we felt the need for improved techniques. Therefore, a study of this type was undertaken. It is summarized here: The atomizing technique for initiating bean bacterial brown spot infections in the greenhouse was superior to four other inoculation methods investigated, including pinching and rubbing with cheesecloth, Q-tip, or pipe cleaner. Placing bean plants in a moist chamber, or covering them with plastic bags, for 24 hr before and after inoculation was not significantly better than allowing them to remain on the greenhouse bench. Phytopathology 61: 1310-1311. These research results have proven to be very helpful in our greenhouse testing of beans for reaction to the bacterial brown spot pathogen, P. syringae.

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RACES OF PSEUDOMONAS PHASEOLICOLA CAUSING HALO BLIGHT OF BEANS IN NEW ZEALAND

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Isolates of Pseudomonas phaseolicola from New Zealand and from overseas were separated into race 1 and race 2 on the basis of their pathogenicity to Phaseolus vulgaris cv. Red Mexican VI-3 and their reaction to phage 12S (isolated by Billing). Results obtained by both methods correlated closely. Race 1 was obtained from both dwarf beans (P. vulgaris) and runner beans (P. coccineus), but race 2 was isolated only from dwarf beans.

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TESTING OF DWARF BEANS FOR THE PRESENCE OF HALO BLIGHT

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In 1972 beans entered in the New Zealand Ministry of Agriculture and Fisheries seed certification scheme were plot tested in the field for the presence of halo blight (Pseudomonas phaseolicola). Nine of the 37 lines were also tested in the laboratory by grinding to a fine powder, suspending in water, plating and testing serologically. Three lines of dwarf beans, passed as halo-blight free by field inspection in the previous season, were found to be infected by the above tests.